Transforming the Next Generation Workforce

FISSEA – "Pecha Kucha" session

iQ4 Frank Cicio - Founder/CEO

iQ4 ...great minds

"From Education to Employability"
McKinsey Report

➢ **Seventy-five million youth are unemployed**

➢ **Half are not sure that their postsecondary education has improved their chance of finding a job**

➢ **Almost 40% of employers say a lack of skills is the main reason for entry-level vacancies**

100 TOP
Job Search
Pinterest
Boards

education
THE ROAD TO SUCCESS
V/S
experience

"BUILD YOUR SKILLS NOT YOUR RESUME"
... Sheryl Sandberg, COO, Google

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Fragmented Market

Katherina, The Mary Louis Academy- "In the 20th century we were called pioneers, nowadays we're engineers, I love space, science, math but IT's NOT ENOUGH ! I want to work with people who do too…and I want to show the world its OK to think differently ! "

Workforce Development Platform
Connecting Industry & Education
"*Virtually*"

Business Framework

Academic Framework

Virtual Projects

Operation Functions

Real-World Education Applied Learning

Academic Learning

STUDENT's WORKFORCE READY

Transforming the Workforce
Virtual Applied Learning Platform

Profiles
For Students

Personal Qualities
Workplace Skills
Competencies
Certifications
Credentialed

Match
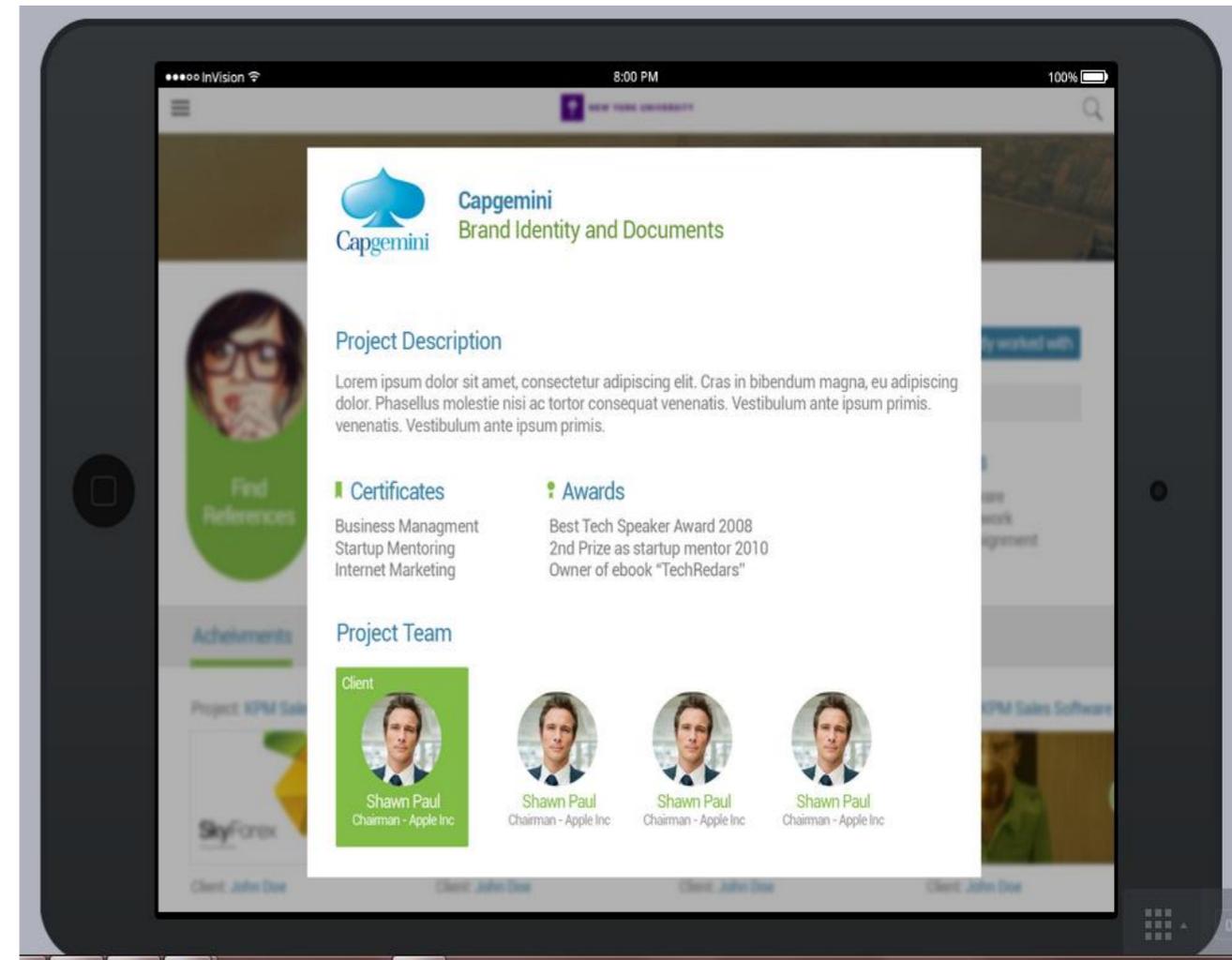### For Employers
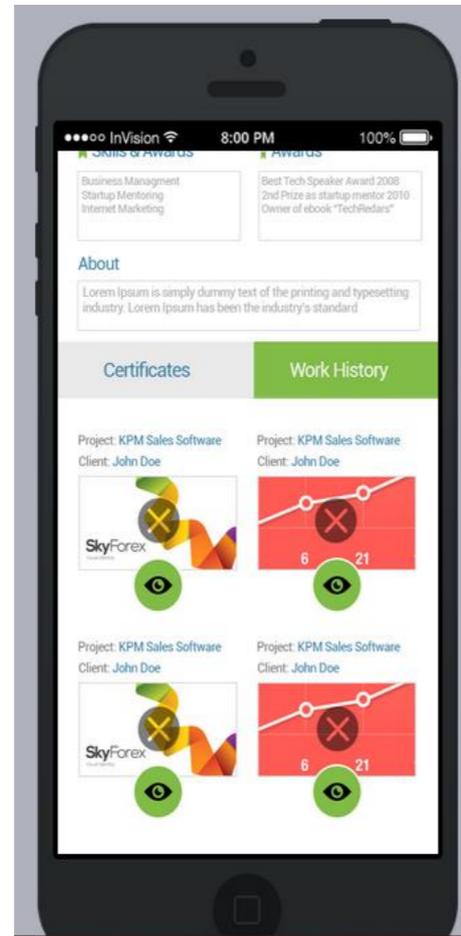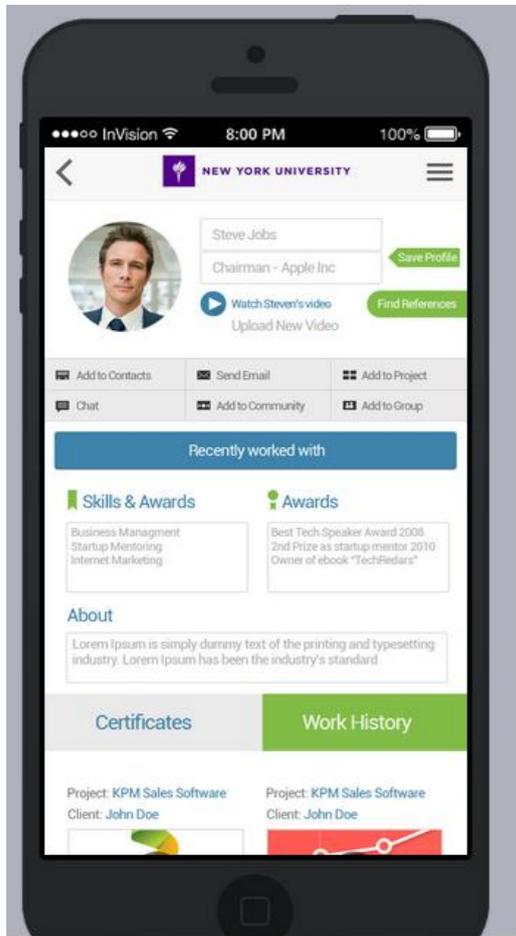
Skills
Profile
Portfolio
Projects
Content

Projects
For Business

Accelerate Education
Retention
Assessments
Virtual Engagement
Research outsourcing
Internships/Jobs

Student "Enterprise Passport"
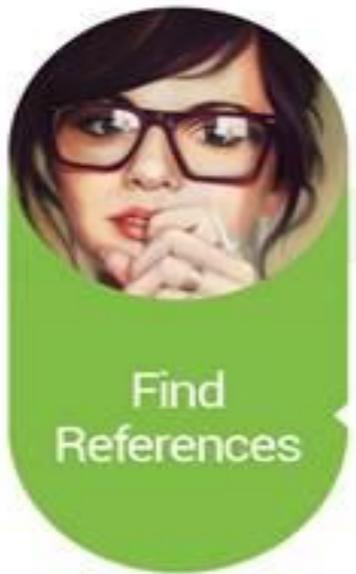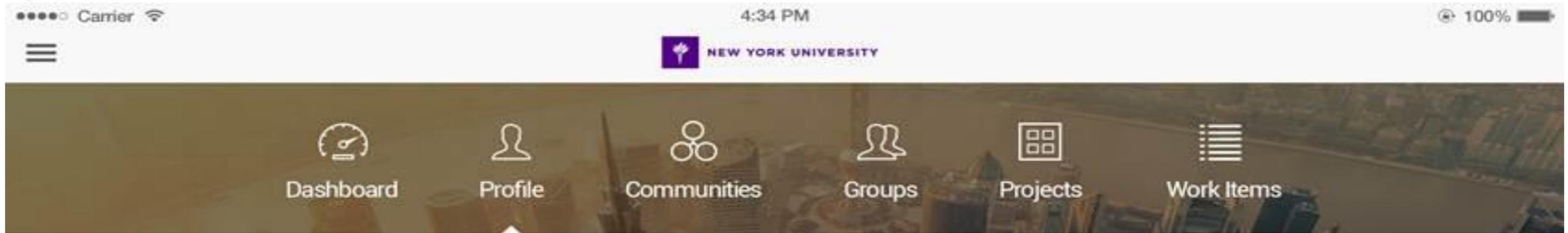
3D Student *Competency* Profiling
"What Students Know and Can Do"

Skills Continuum
Transcripts, Degrees, Enrollment, Certifications

Progression Mapping
Time Windows: Challenges, Innovation, Accomplishments

Pathways Roadmap
Stackable Credentials: Career Opportunities

"Trusted Data – Validated Credentials"

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NATIONAL STUDENT CLEARINGHOUSE

T
SM

Founding Partner

Lead Pioneer: Dr Charles Camarda, Astronaut.
Senior Advisor for Innovation, Office of the Chief Engineer

SOLVING REAL-WORLD EPIC CHALLENGES

Inspire Innovate

Innovation

STEM

Problem Solving

Curriculum

Align Industry & Education

Level the Playing Field

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"It's all about [solving] the problem" it creates the passion..

WOW students can solve ...
Real-world problems

ICED Methodology
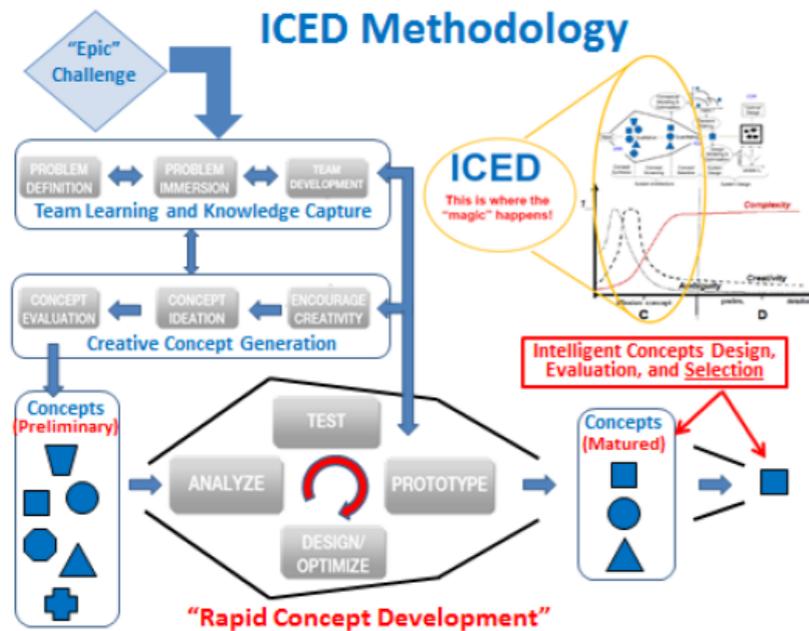
The hair on a polar bear isn't white, it's transparent

Hexangular Air Pockets Trap Body Heat
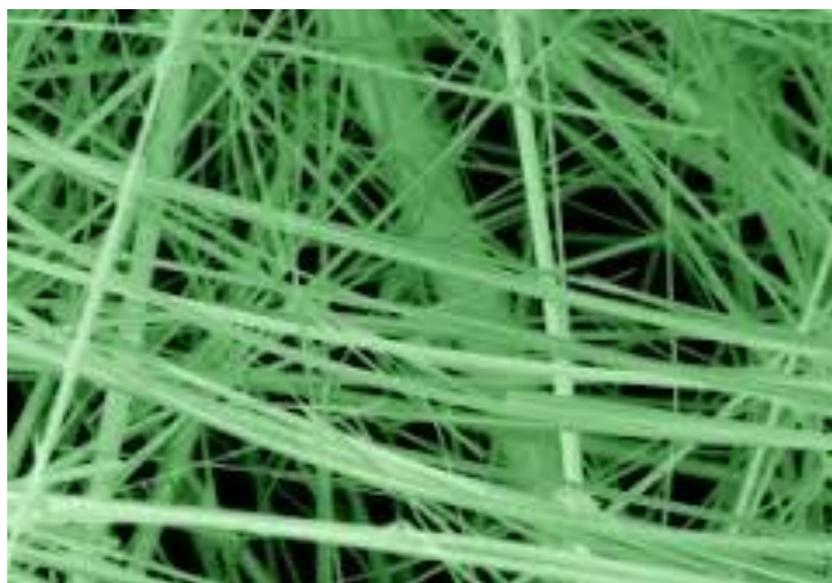
Nanomaterial produced MIT
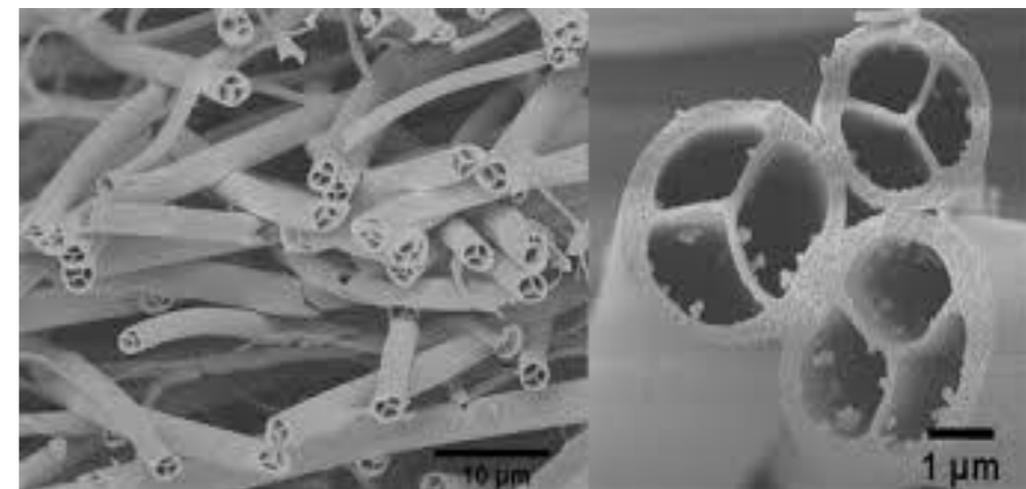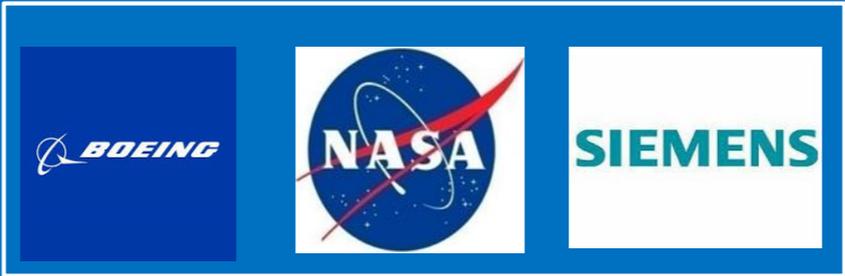
...great minds

Cybersecurity Workforce Development Alliance

Aligning Education With Industry's Context and Needs

- NYU
- Federal Reserve
- Morgan Stanley
- Goldman Sachs
- Bank NY Mellon
- Fidelity Investments
- Express Scripts
- RANE Network
- Perkins Coie
- Capgemini
- NASA
- National Student Clearinghouse

sifma®
Invested in America

CUNY The City University of New York

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Digital Skills "Passport" And Workforce Development Platform

Purpose

Improve the cyber security skills and scale the college student workforce, so they are more attractive to hire and can provide almost immediate value to the public & private sector by improving a company's Cyber Security capabilities.

Focus

Reduce the amount of initial training required by employers for college hires.

Create the "candidate profile" for a College Hire in Cyber Security

Create and run "the Epic Challenge"

Increase understanding of and interest in a career in Cyber security

Align & Enhance curricula to develop the skills needed for a career in Cyber Security

NIST/NICE Workforce Framework

"Know [PROFILE} your talent, identify and fill the skills gaps and develop unrivaled Cyber workforce"

Collect and Analyze Data	Capture cybersecurity workforce and training data to understand capabilities and needs.
Recruit and Retain	Incentivize the hiring and retention of highly skilled and adaptive professionals needed for a secure digital nation.
Educate, Train, and Develop	Expand the pipeline for and deliberately develop an unrivaled cybersecurity workforce.
Engage	Educate and energize all cybersecurity workforces and the American public to strengthen the nation's front lines of cybersecurity.

Any company doing business with USA will be examined as to their effectiveness with NIST-CA and NICE for Cyber Risk and Assurance

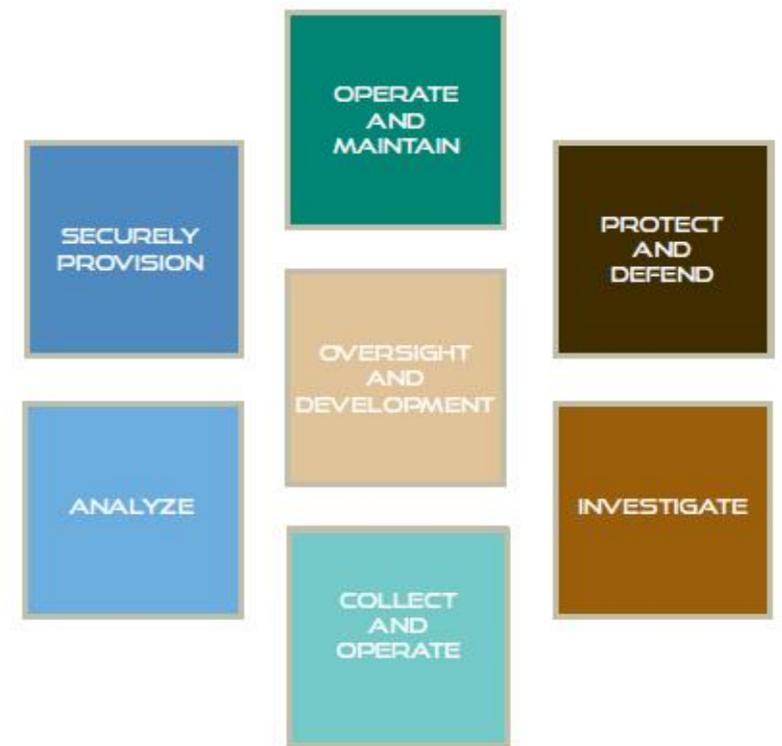NATIONAL INITIATIVE FOR CYBERSECURITY EDUCATION (NICE)

THE NATIONAL CYBERSECURITY WORKFORCE FRAMEWORK

INTRODUCTION

The ability of academia and public and private employers to prepare, educate, recruit, train, develop, and retain a diverse, qualified cybersecurity workforce is vital to our nation's security and prosperity. [full text version]

DEFINING CYBERSECURITY

Defining the cybersecurity population using common, standardized labels and definitions is an essential step in ensuring that our country is able to educate, recruit, train, develop, and retain a highly-qualified workforce. The National Initiative for Cybersecurity Education (NICE), in collaboration with federal government agencies, public and private experts and organizations, and industry partners, has published version 1.0 of the *National Cybersecurity Workforce Framework* ("the Framework") to provide a common understanding of and lexicon for cybersecurity work. [full text version]

THE CALL TO ACTION

Only in the universal adoption of the *National Cybersecurity Workforce Framework* can we ensure our nation's enduring capability to prevent and defend against an ever-increasing threat. Therefore, it is imperative that organizations in the public, private, and academic sectors begin using the Framework's lexicon (labels and definitions) as soon as possible. [full text version]

OPERATE AND MAINTAIN

SECURELY PROVISION

PROTECT AND DEFEND

OVERSIGHT AND DEVELOPMENT

ANALYZE

INVESTIGATE

COLLECT AND OPERATE

| Home | Using This Document | Sample Job Titles | Securely Provision | Operate and Maintain | Protect and Defend | Investigate | Collect and Operate | Analyze | Oversight and Development |

FBI Strategy Map

FBI Mission

A1 - "Protect US from terrorist and foreign intelligence activity"

A2 - "Combat criminal activity that threatens the safety and security of society"

A3 - "Preserve civil liberties"

A4 - "Provide leadership, intelligence, and law enforcement assistance to our partners"

FBI Capability

Management Excellence

P1 – Streamline administrative and operational processes

P2 – Assign responsibility and own accountability

P3 – Maximize organizational collaboration

Operational Excellence: Deter, Detect, and Disrupt National Security and Criminal Threats

P4 – Collection/ Investigation

P5 - Intelligence dissemination and integration

P6 - Analysis

P7 - Action and/or requirements

Maximize Partnerships

P8 - Enhance relationships with law enforcement and intelligence partners

P9 - Enhance international operations

P10 - Enhance relationships with the private sector and the public

P11 – Incorporate forecasting and planning into FBI processes

P12 – Improve internal communications

Talent and Technology

Maximize Workforce Success

T1 - Improve recruiting, selection, hiring and retention

T2 – Train and develop skills and abilities of our workforce

T3 – Link skills and competencies to needs

T4 – Identify, develop and retain leaders throughout our organization

T5 - Enhance work environment to facilitate mission

Leverage Technology and Science

T6 – Align technology and science to our strategic objectives

T7 - Deploy technology and science to make our workforce more effective and efficient

Resource

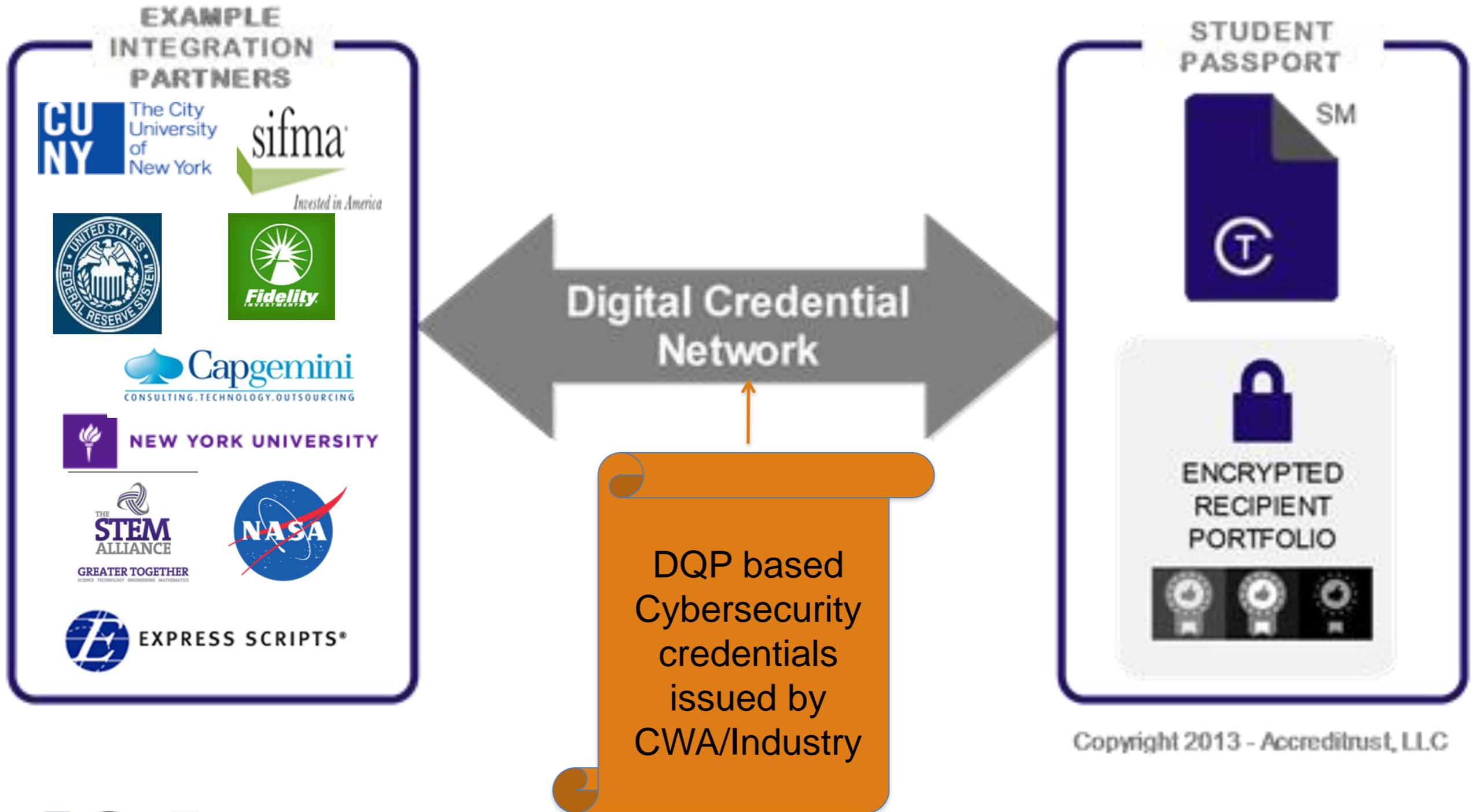**Optimize Resources**

R1 - Utilize and align existing resources and assets in an efficient manner

R2 - Secure and align appropriate resources

DQP Student "Enterprise" Passport

EXAMPLE INTEGRATION PARTNERS

Digital Credential Network

DQP based Cybersecurity credentials issued by CWA/Industry

STUDENT PASSPORT

SM

ENCRYPTED RECIPIENT PORTFOLIO

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The New York Times

How to Get a Job at Google *"Project Based Interviews"*

FEB. 22, 2014

Laszlo Bock, the senior vice president of people operations for Google — i.e., the guy in charge of hiring for one of the world's most successful companies — noted that Google had determined that "G.P.A.'s are worthless as a criteria for hiring, and test scores are worthless. ... We found that they don't predict anything."

Bock is saying something important to them, too: Beware. **Your degree is not a proxy for your ability to do any job. The world only cares about — and pays off on — what you can do with what you know (and it doesn't care how you learned it).** And in an age when innovation is increasingly a group endeavor, it also cares about a lot of soft skills — **leadership, humility, collaboration, adaptability and loving to learn and re-learn**. This will be true no matter where you go to work

Lupita Nyongo

2014 Oscar Winner

" No matter where you come from, your dreams are valid "